

CLAIMS

1. A device for delivering an active material to a target region of a nasal passage, comprising delivery means having an outlet for the material, and support means for
5 supporting the delivery means with the outlet at a predetermined location in the nostril, the device being arranged such that gas flow into the nostril is substantially stable and non-turbulent.
2. A device as claimed in claim 1, in which the device is arranged such that
10 inhalation gas flow into the nostril is substantially unimpeded.
3. A device as claimed in claim 1 or 2, in which the device is arranged such that the gas flow into the nostril substantially surrounds the outlet.
- 15 4. A device as claimed in any preceding claim comprising a guide arranged to guide the support means into a predetermined orientation with respect to the nostril.
5. A device as claimed in any preceding claim, in which the delivery means comprises a delivery nozzle.
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6. A device as claimed in any preceding claim, in which the support means comprises an outer nozzle.
7. A device as claimed in claim 6, in which the outer nozzle is arranged to fit
25 within the nostril and to be substantially coextensive with the nostril in a direction substantially perpendicular to the direction of flow.
8. A device as claimed in claim 7, in which the guide comprises abutment means mounted on the outer nozzle for abutting the outlet of the nostril.
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9. A device as claimed in claim 7 or 8, in which the guide comprises means for cooperating with the other nostril.

10. A device as claimed in claim 9, in which the means for cooperating with the other nostril comprises a further outer nozzle, and the abutment means comprises a base on which the outer nozzles are mounted.

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11. A device as claimed in claim 10, in which the support means comprises either of the outer nozzles.

12. A device as claimed in any of claims 1 to 8, in which the support means is
10 movable with respect to the guide between positions corresponding to each nostril respectively.

13. A device as claimed in claim 10, 11 or 12 in which the guide comprises a member arranged to cooperate with the nose such that the device may be positioned in
15 one orientation only.

14. A device as claimed in any of claims 5 to 13, in which the inlet of the delivery nozzle is within the outer nozzle, and the outlet of the delivery nozzle is at or adjacent the outlet of the outer nozzle.

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15. A device as claimed in any of claims 5 to 14, comprising a housing for containing the particles of active material, and a delivery passage communicating with the delivery nozzle.

25 16. A device as claimed in any preceding claim comprising aerosol means for providing the particles as an aerosol mist.

17. A device as claimed in any preceding claim, comprising gas propulsion means for propelling gas into the nostril at a flow rate which produces the substantially non-
30 turbulent flow.

18. A device as claimed in claim 17, in which the gas propulsion means is arranged to propel the gas at a flow rate from about 1 litre/min to about 30 litres/min.
19. A device as claimed in any preceding claim, comprising particle propulsion
5 means for propelling the particles from the outlet at a velocity substantially matching that of the non-turbulent flow.
20. A device as claimed in claim 19, in which the particle propulsion means is arranged to entrain the particles in a delivery gas flow, the delivery gas flow having a
10 velocity about +/- 20% of that of the non-turbulent flow.
21. A device for delivering a substance selectively to either nostril comprising: a guide arranged to cooperate with the nose, a pair of delivery stations arranged to correspond with each respective nostril, and substance delivery means positionable at
15 either of the delivery stations.
22. A method of delivering an active material to a target region of the nasal passage, comprising delivering the material from a predetermined location in the nostril in a substantially non-turbulent gas flow.
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23. A method as claimed in claim 22, comprising delivering the particles at a velocity substantially matching that of the gas flow.
24. A method as claimed in claim 22 to 23, comprising providing the non-turbulent
25 gas flow into the nasal passage.
25. A method as claimed in claim 22, 23 or 24, in which the predetermined location is surrounded by the substantially non-turbulent gas flow.
- 30 26. A method as claimed in any one of claims 22 to 25, comprising providing the material in the form of particles having an aerodynamic diameter from about $7.5\mu\text{m}$ to about $30\mu\text{m}$.

27. A method as claimed in claim 26, in which the aerodynamic diameter is from about $10\mu\text{m}$ to about $20\mu\text{m}$.

5 28. A method as claimed in claim 27, in which the aerodynamic diameter is from about $10\mu\text{m}$ to about $15\mu\text{m}$.

29. A method as claimed in claim 26, in which the aerodynamic diameter is from about $7.5\mu\text{m}$ to $20\mu\text{m}$.

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30. A device or method as claimed in any preceding claim in which the target area is the olfactory region, and in which the predetermined location is at or adjacent the tip of the nose.

15 31. A device or method as claimed in any of claims 1 to 29 in which the target area is the turbinate region, and in which the predetermined location is spaced from the tip of the nose, and contained within an area which is closer to the tip of the nose than the base of the nose.

20 32. A device or method as claimed in any of claims 1 to 29, in which the target area is the turbinate region, and in which the predetermined location is spaced from the base of the nose, and is contained within an area which is closer to the base of the nose than the tip of the nose.

25 33. A device substantially as described herein, with reference to the accompanying drawings.

34. A method substantially as described herein, with reference to the accompanying drawings.